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**Hyperbaric Oxygen Therapy as adjunctive treatment of chronic diabetic foot ulcers - results from a prospective randomized double-blind study** Löndahl M<sup>1</sup>, Nilsson A<sup>1</sup>, Hammarlund C<sup>2</sup>, Apelqvist J<sup>3</sup>, Sellman A<sup>4</sup>, Katzman P<sup>1</sup> Dept of Endocrinology, Lund University Hospital, <sup>2</sup>Dept of Anaesthesiology, Helsingborg Hospital, <sup>3</sup>Dept of Endocrinology, Malmö University Hospital, <sup>4</sup>Dept of Eye Diseases, Helsingborg Hospital, all Sweden

**Background:** Despite improvement following a multidisciplinary team approach, amputation rate and frequency of unhealed ulcers are still too high, and the need for adjunct treatment strategies persists. Hyperbaric oxygen therapy (HBOT) may be a treatment modality to improve oxygenation of ischemic tissue. Previous studies indicate beneficial effect of HBOT on ulcer healing and amputation frequency in patients with diabetes mellitus. However, the question whether a diabetic foot ulcer is an indication for HBOT is still under debate, since none of the previous studies is without methodological problems. The final conclusion of an analysis completed in 2004 by the Cochrane Collaboration was that further research is needed. **Results:** The HODFU study is a single centre, prospective, randomised, double-blind study, designed to evaluate the effects of HBOT as compared to placebo (air-breathing under hyperbaric conditions) on ulcer healing in patients with diabetes mellitus and chronic foot ulcers. Patients with ulcer duration of more than 3 months were offered inclusion if their peripheral circulation was normal or a vascular surgeon had denied further vascular interventions. 94 patients were included. The last 1-year follow-up visit will be performed in the beginning of April 2008, and soon thereafter the randomization code will be broken and data analysed. **Discussion:** Irrespectively of outcome, this study will probably add some further knowledge about HBOT as a treatment modality of chronic diabetic foot ulcers.